Advantages of Conditioned Basements

photo by Britt-Makela Group

Many homes are being constructed with unfinished basements to reduce initial costs. In most cases, the homeowner eventually finishes the basement for additional living space by installing basement wall insulation. Because most basements are eventually occupied, the advantages and disadvantages of conditioning the basement should be thoroughly reviewed prior to permitting and construction.

A space is conditioned if heating and/or cooling is deliberately supplied to it or is indirectly supplied through uninsulated surfaces of water or heating equipment, uninsulated ducts, or uninsulated floors, ceilings, or walls between it and another conditioned space.

Advantages of Basement Wall Insulation	Disadvantages of Basement Wall Insulation
More easily achieves continuous thermal and air leakage boundaries because basement ceilings are typically	Costs may exceed those for insulating the basement ceiling depending on the materials and approach

penetrated with electrical wiring, plumbing, ductwork, and doors	selected
Requires little, if any, increase in the size of heating and cooling equipment - the heat loss and air leakage through the basement ceiling is similar to that through the basement''s exterior walls	Installing insulation improperly may cause moisture and mold problems
Eliminates the need for insulation of the piping and ductwork to provide energy efficiency or to protect against freezing because they are located within the house''s conditioned volume	May require non-invasive termite detection systems, such as termite baits, in termite-prone areas
Eliminates the requirement of insulating the basement ceiling	

Additional Information

- Advantages and Disadvantages of Finishing Basements During Initial Construction of the Home
- Basement Insulation Techniques